

INTERNATIONAL SEARCH REPORT

International Application No

PCT/DK2004/000451

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C07K14/47 C07K1/16

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 C12N C07K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)
EPO-Internal, WPI Data, PAJ, BIOSIS, EMBASE, Sequence Search

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	COLANGELI R ET AL: "Three-step purification of lipopolysaccharide-free, polyhistidine-tagged recombinant antigens of Mycobacterium tuberculosis" JOURNAL OF CHROMATOGRAPHY B: BIOMEDICAL SCIENCES & APPLICATIONS, ELSEVIER SCIENCE PUBLISHERS, NL, vol. 714, no. 2, 4 September 1998 (1998-09-04), pages 223-235, XP004146958 ISSN: 1570-0232 abstract sections 2.3 - 2.6 page 233, right-hand column, last paragraph ----- -/--	1-33

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

A document defining the general state of the art which is not considered to be of particular relevance

E earlier document but published on or after the international filing date

L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

Z document member of the same patent family

Date of the actual completion of the international search

15 September 2004

Date of mailing of the international search report

23/09/2004

Name and mailing address of the ISA

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national Application No

T/DK2004/000451

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	LAROCHE-TRAINEAU J ET AL: "Three-step purification of bacterially expressed human single-chain Fv antibodies for clinical applications" JOURNAL OF CHROMATOGRAPHY. BIOMEDICAL APPLICATIONS, ELSEVIER, AMSTERDAM, NL, vol. 737, no. 1-2, January 2000 (2000-01), pages 107-117, XP004184259 ISSN: 0378-4347 abstract sections 2.3.4, 2.3.5, 2.3.6 page 110, right-hand column, lines 30-34 page 116, left-hand column, lines 1-3	1-33
P,X	WO 03/087338 A (AMGEN INC ; JING SHUQIAN (US); TATAREWICZ SUZANNA (US)) 23 October 2003 (2003-10-23) sequence 11	34-48
X	WO 97/24438 A (LAUS REINER ; WU HONGYU (US); RUEGG CURTIS L (US); ACTIVATED CELL THER) 10 July 1997 (1997-07-10) figure 8; sequences 3,4	34-48
X	US 5 976 546 A (RUEGG CURTIS LANDON ET AL) 2 November 1999 (1999-11-02) sequence 4	34-48
A	PORATH J: "IMMOBILIZED METAL ION AFFINITY CHROMATOGRAPHY" PROTEIN EXPRESSION AND PURIFICATION, ACADEMIC PRESS, US, vol. 3, no. 4, August 1992 (1992-08), pages 263-281, XP001098444 ISSN: 1046-5928 cited in the application the whole document	
A	WO 00/20027 A (M & E BIOTECH A S ; NIELSEN KLAUS GREGORIUS (DK); BIRK PETER (DK); DAL) 13 April 2000 (2000-04-13) cited in the application the whole document	

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Box No. I Nucleotide and/or amino acid sequence(s) (Continuation of Item 1.b of the first sheet)

1. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, the international search was carried out on the basis of:
- a. type of material
- ☒ a sequence listing
- ☐ table(s) related to the sequence listing
- b. format of material
- ☒ in written format
- ☒ in computer readable form
- c. time of filing/furnishing
- ☒ contained in the international application as filed
- ☒ filed together with the international application in computer readable form
- ☐ furnished subsequently to this Authority for the purpose of search
2. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
3. Additional comments:

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Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
Although claims 47, 48 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

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Information on patent family members

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 03087338	A	23-10-2003	WO 03087338 A2 US 2003228606 A1	23-10-2003 11-12-2003
WO 9724438	A	10-07-1997	US 6080409 A AU 716783 B2 AU 1338097 A CA 2241373 A1 EP 0870022 A1 JP 2000502567 T NZ 326092 A WO 9724438 A1 US 5976546 A US 6210662 B1	27-06-2000 09-03-2000 28-07-1997 10-07-1997 14-10-1998 07-03-2000 29-11-1999 10-07-1997 02-11-1999 03-04-2001
US 5976546	A	02-11-1999	US 6080409 A US 6210662 B1 AU 716783 B2 AU 1338097 A CA 2241373 A1 EP 0870022 A1 JP 2000502567 T NZ 326092 A WO 9724438 A1	27-06-2000 03-04-2001 09-03-2000 28-07-1997 10-07-1997 14-10-1998 07-03-2000 29-11-1999 10-07-1997
WO 0020027	A	13-04-2000	AT 269100 T AU 751709 B2 AU 5851099 A CA 2345817 A1 CN 1323217 T CZ 20011049 A3 DE 69918146 D1 WO 0020027 A2 EA 3634 B1 EE 200100203 A EP 1117421 A2 HR 20010319 A1 HU 0103976 A2 ID 28387 A JP 2002526419 T NO 20011586 A NZ 511055 A PL 347977 A1 SK 4272001 A3 TR 200100936 T2 US 2004141958 A1 ZA 200102603 A	15-07-2004 22-08-2002 26-04-2000 13-04-2000 21-11-2001 14-08-2002 22-07-2004 13-04-2000 28-08-2003 15-10-2002 25-07-2001 30-06-2002 28-02-2002 17-05-2001 20-08-2002 31-05-2001 31-10-2003 06-05-2002 04-02-2003 21-08-2001 22-07-2004 30-09-2002